EFFECT AMOUNT OF CIGARETTE SMOKING ON GINGIVAL EPITHELIUM THICKNESS

(EFEK JUMLAH ROKOK SIGARET TERHADAP KETEBALAN EPITHEL GINGIVAL)

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Abstract

Smoking is one of the most important risk factors for oral diseases. Tobacco smoking produces more than 4000 chemical materials. Gingival protects underlying tissue to oral environment. Cells of gingival epithelium are metabolic actively, and can be reacted to internal and external stimuli. The thickness of oral mucosa epithelium is related with the amount of cell or proliferation activity. This study aimed to investigate effect amount of cigarette smoking on thickness of gingival epithelium. This study was animal experimental laboratory study. This study used 40 males *Rattus Norvegicus* strain *Spraque Dawley*, and were divided into 4 groups. They were control, mild, moderate and severe smoker groups. The animal models were exposed 2 grams by pump and were euthanized with ketamine in the 7^{th} day. Measurement of gingival epithelium thickness used hematoxylin eosin that was measured from basale to granular layer and 3 sites (in µm). Data were analyzed by one way anova. The results of this research showed that there was an increasing thickness of gingival epithelium of animal models. The highest of gingival epithelium thickness was in severe smoker groups. In conclusion, cigarette smoking influenced on gingival epithelium thickness.

Key words: cigarette smoking, cell proliferation, gingival thickness